Appl. No. 10/783,214
Amdt. dated October 30, 2007
Reply to Office Action of September 11, 2007

Atty. Ref. 81710.0266
Customer No. 26021

Remarks/Arguments

Reconsideration of this application is requested.

Claim Status

Claims 1-20 are pending. Claims 1, 2, 4, 6, 8, 11 and 20 are amended.

Claim Objections

Claim 11 is amended as suggested to correct the typographical error noted in the Action ("imeans" changed to --means--).

Claim Rejections – 35 USC 102(b) - Yamamoto

Claims 1-10, 12 and 19 are rejected under 35 USC 102(b) as anticipated by Yamamoto (US 7,167,258). Applicant respectfully traverses the rejections.

Claims 1-3, 7 and 19

The present invention is directed to an image scanning device that outputs to a network, an image output device that outputs remote image information, and an information processing device that accepts scanned image information and outputs the scanned image information to the image output device under a common protocol. The image scanning device includes a port that connects to the image output device and a port that connects to the information processing device. The image scanning device analyzes destination information of data input from the ports and switches the connections of the ports accordingly.

Importantly, the image output device is connected directly only to the image scanning device and is not directly connected to the other devices. For example, the printer device 2 of applicant's FIG. 1 is not connected directly to the other devices, such as hub 8 or PCs 3 and 4, and is instead directly connected to scanner device 1. In this manner, data communication between the printer device 2 and the PCs 3 and 4 is carried out via the scanner device 1. This feature allows reduction of the number of ports in the hub 8 and PCs 3 and 4 since there is no direct connection from those devices to printer device 2 (specification, paragraph 0043). Furthermore, the present invention provides a copying process without a PC and reduces the load

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placed on a network, as compared to a conventional system that connects a scanner, printer and PC to each other via a LAN (paragraphs 0003 and 0006).

Yamamoto, by contrast, discloses in FIG. 1 and column 12, lines 17-18, a conventional system having a laser beam printer 300 connected to LAN 10. A printer 300 is not directly connected only to an image scanner 200. In fact, a direct connection between image scanner 200 and printer 300 is not disclosed. Therefore, Yamamoto does not reduce a network load or the number of ports as provided by the applicant.

In view of this difference, claims 1 and 2 are amended to recite that the image output device is connected directly only to the image scanning device. The ancillary references do not remedy the deficiencies of Yamamoto. Moreover, on page 3 of the Action, column 14, lines 27-32 of Yamamoto is cited for teaching an image output device that visibly outputs remote image information. Applicant respectfully disagrees. Yamamoto teaches a scanner that reads and transmits the image data to a remote device. There is no disclosure or suggestion of any "visible output" of an image by the scanner.

Since Yamamoto does not disclose each and every feature of claims 1 and 2, it cannot anticipate those claims or claims 3, 7 and 19 dependent thereon. The rejections of these claims under 35 USC 102(b) should accordingly be withdrawn.

Claims 4-6 and 8

Claim 4 depends from claim 2 and further recites that data is abandoned when the destination information is for other devices. This feature is not taught by Yamamoto. Yamamoto discloses in FIG. 11 and column 16, a transfer path based on device profiles that is executed by host computer 400. A request for device profiles is first transmitted. The Action cites a search processing of an output device for a device profile (see FIG. 12; step S1107 and col. 16, lines 48-53). Then, after a device profile is received and selected for the input and output devices, a transfer path is generated. The transfer path profile is generated and stored in a recording device 511 (see col. 16, line 64 – col. 17, line 8). Therefore, data is stored

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after a search and is not abandoned such that Yamamoto teaches against claim 4. Similarly, claim 5 requires that data be abandoned after receiving a fact that the data has been received normally at the port for the image output device. Yamamoto does not disclose this additional feature of reception confirmation.

Claim 6 requires a status to be associated with the destination information. The status changes from "not stored" to "stored" when the data is output and a reception confirmation is received within a prescribed period of time. Claim 8 recites a connection status of a port that is switched based on a reception confirmation input within a prescribed period of time. While Yamamoto teaches a device profile and a control program stored in ROM 303, a prescribed period of time and a connection status switch between "stored" and "not stored" based on a reception confirmation is clearly not disclosed. Even broadly interpreted, Yamamoto teaches little beyond the storage of a control program and device setting information. Applicant does not understand how such meager disclosure of a control program stored in a ROM teaches a status, a status change, a connection status switch, or data abandonment. Clarification is respectfully requested in this regard if the rejection is maintained.

In view of these distinguishing features, claims 4, 6 and 8 are amended into independent form. Since Yamamoto does not disclose each and every feature of claims 4, 6 and 8, it cannot anticipate those claims or claim 5 dependent thereon. The rejections under 35 USC 102(b) of these claims should accordingly be withdrawn.

Claims 9, 10 and 12

Claim 9 is directed to another embodiment of the present invention that includes an image scanning device, image output device and information processing device. Claim 9 further recites:

> *means for controlling...when receiving a network printing request from the network through the second port during the copying process, to receive and accumulate print data until a means for storing reaches a prescribed accumulation amount, and when the means for storing*

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*reaches the prescribed accumulation amount, to transmit to the
information processing device, data instructing to interrupt or suppress
transmission of the print data...*

Page 12 of the Action cites column 11, lines 20-35 of Yamamoto as teaching a
laser beam printer 300 that controls access to various devices and outputs an image
signal from a printer engine 306 as output information. However, an instruction to
interrupt or suppress transmission of print data when a prescribed accumulation
amount of print data is stored is neither disclosed nor suggested.

Claim 10 is similar to claim 9 but differs in that scanning is stopped when
the means for storing reaches a prescribed accumulation amount. Scanning is
restarted when the available capacity in the means for storing recovers by process
of the network printing process. After an end of the network printing process, the
accumulated scanned image data is outputted from the first port via the network to
the image output device.

Claim 12 recites that when receiving a network printing request from the
network through the second port during the copying process, print data is received
and accumulated until a means for storing reaches a prescribed accumulation
amount. When the means for storing reaches the prescribed accumulation amount,
data instructing to interrupt or suppress transmission of the print data is
transmitted to the information processing device.

As discussed above with respect to claim 9, Yamamoto merely teaches
communication between devices that is controlled by a laser beam printer 300. The
mere disclosure of network communication using control programs does not suggest
how those control programs operate or provide the disclosure necessary to teach
applicant's features of the prescribed accumulation amount, the restarting of
scanning or the transmission of an interrupt or suppress instruction.

Since Yamamoto does not disclose each and every element of claims 9, 10 and
12, it cannot anticipate those claims. The rejections under 35 USC 102(b) should
accordingly be withdrawn.

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Claim Rejections – 35 USC 103(a) - Rosenlund

Claims 11 and 16 are rejected as obvious over Yamamoto in view of Rosenlund (US 6,738,155). Claims 17 and 18 are rejected as obvious over Yamamoto in view of Roselund and Danknick.

Claims 11 and 16 are directed to an image scanning device having a first and second port to connect to an image output device and information processing device, respectively. Print data received from a network through the second port in a network printing process is output from the first port via the network to the image output device. When a copying instruction is input during the network printing process, an image is scanned and accumulated as scanned image data until a prescribed accumulation amount is stored. When the prescribed accumulation amount is reached, the scanning speed is decreased, and when an available capacity of storage recovers by the progress of the network printing process, the scanning speed increases. After an end of the network printing process, the accumulated scanned image data is output from the first port via the network to the image output device. Rosenlund clearly does not operate in this manner.

Rosenlund is directed to hierarchical storage management (HSM) system 120 that archives electronic files. HSM system 120 is RAID and SAN capable and can store greater than a terabyte of data. RAID allows for the storage and retrieval of high resolution images or other large files (see col. 6, lines 4-14).

Applicant respectfully submits that there is little, if any, relevance between a RAID server and applicant's recitation of varying scanning speeds based on storage capacity, a copying instruction and a prescribed accumulation amount. The simple disclosure of a high capacity storage system clearly does not disclose or suggest independent claims 11 and 16. Danknick is directed to allocating print jobs among a plurality of printers and does not remedy the deficiencies of Rosenlund.

Since Yamamoto, Rosenlund and Danknick do not disclose or suggest each and every element of claims 11 and 16, these claims and claims 17 and 18

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dependent thereon are not obvious over Yamamoto, Rosenlund and Danknick. The rejections under 35 USC 103(a) should be withdrawn.

Claim Rejections – 35 USC 103(a) - Maeda

Claims 13 and 20 are rejected as obvious over Yamamoto in view of Maeda (US 6,557,033). Claims 14 and 15 are rejected as obvious over Yamamoto in view of Maeda and Danknick (US 6,856,416).

Claim 13 is directed to an image scanning device having a first and second port to connect to an image output device and information processing device, respectively. Print data received from the network through the second port in a network printing process is output from the first port via the network to the image output device. When a copying instruction is input during the network printing process, an image is scanned and accumulated as scanned image data until a prescribed accumulation amount is stored. Scanning is stopped when the prescribed accumulation amount is reached. Scanning is restarted when the available capacity in storage recovers by progress of the network printing process. After an end of the network printing process, the accumulated scanned image data is output from the first port via the network to the image output device. Applicant notes that scanning is started, stopped and restarted based on the amount of scanned image data that is stored.

Maeda discloses a printer-scanner composite apparatus 100. A detachable printer head 302 and scanner head 303 is provided to form a composite apparatus that can switch between a print and scan function by using an appropriate driver (see Abstract, FIG. 3 and col. 4, lines 62-65).

For example, when a printer head is replaced with a scanner head or vice versa, the operation of the previous head is stopped and after a predetermined time period has elapsed, the driver for that head is uninstalled and the new head is initialized (see FIG. 6 and col. 7, lines 32-65). Therefore, scanning is stopped when the scanner head is detached and not when scanned image data is stored up to a prescribed accumulation amount. Furthermore, scanning is restarted when a

scanner head is re-attached to the composite apparatus and not when the amount of stored scanned image data is reduced by the progress of network printing. The amount of scanned image data that is stored is of no consequence to the head switching. Thus, Maeda fails to disclose or suggest applicant's image scanning device as recited in claim 13.

Moreover, dependent claim 14 requires an operation unit to instruct an interrupt copy command. Danknick merely reroutes interrupted print jobs using a host 112 that is clearly not an operation unit. An interruption is caused by an error in printing that is not an instruction to interrupt a copy command (col. 5, lines 25-33).

Independent claim 20 is amended to include the feature added to claim 1, as discussed in detail above. In this regard, Maeda merely teaches a printer 106 connected to a hub 1 and not directly only to a scanner 107 and does not remedy the deficiencies of Yamamoto. Danknick is similarly deficient.

Since Yamamoto, Maeda and the other ancillary references do not disclose or suggest each and every element of claims 13 and 20, these claims and claims 14 and 15 dependent thereon are not obvious over Yamamoto, Maeda and the other ancillary references. The rejections under 35 USC 103(a) should be withdrawn.

Conclusion

This application is now in condition for allowance. The Examiner is invited to telephone the undersigned to resolve any issues that remain after entry of this amendment.
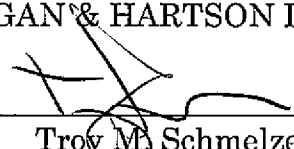
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Any fees due with this response may be charged to our Deposit Account No. 50-1314.

Respectfully submitted,

HOGAN & HARTSON L.L.P.

Date: October 30, 2007

By:

Troy M. Schmelzer
Registration No. 36,667
Attorney for Applicant(s)

1999 Avenue of the Stars, Suite 1400
Los Angeles, California 90067
Phone: 310-785-4600
Fax: 310-785-4601

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